SYSTEMS AND METHODS FOR MULTI-OBJECTIVE PORTFOLIO ANALYSIS USING PARETO SORTING EVOLUTIONARY ALGORITHMS

ABSTRACT OF THE DISCLOSURE

The systems and methods of the invention are directed to portfolio optimization and related techniques. For example, the invention provides a method for multi-objective portfolio optimization for use in investment decisions based on competing objectives and a plurality of constraints constituting a portfolio problem, the method comprising: generating an initial population of solutions of portfolio allocations; committing the initial population of solutions to an initial population archive; performing a multi-objective process, based on the initial population archive and on multiple competing objectives, to generate an efficient frontier, the multi-objective process including a evolutionary algorithm process, the evolutionary algorithm process utilizing a dominance filter, the efficient frontier being used in investment decisioning.